

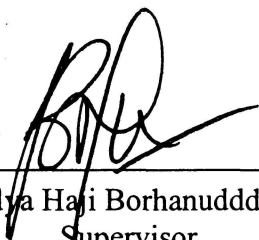
**OIL MIST REMOVAL FROM CONTAMINATED AIRBORNE USING
DRY POWER FROM BANANA STEM**

SITI JURIAH BINTI ABDUL RAHIM

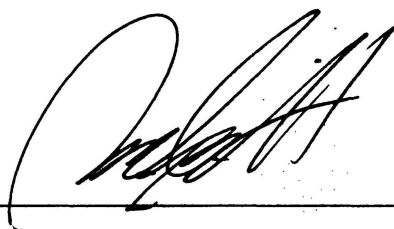
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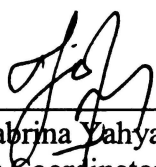
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TABLE OF CONTENT

ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix

CHAPTER 1 INTRODUCTION

1.1	Background and Problem Statement	1
1.2	Significance of studies	4
1.3	Objective of study	5

CHAPTER 2 LITERATURE REVIEW

2.1	Industrial hygiene	6
2.2	What is oil mist?	10
2.3	Sources of mist	11
2.4	Chemical and physical properties	12
2.5	Health effects of oil mist to human	12
2.6	Health effects of oil mist to animal	14
2.7	Exposure limit	15
2.8	Banana stems	16
	2.8.1 Previous study	16
2.9	Advantages of banana stem	19

CHAPTER 3 METHODOLOGY

3.1	Measurement (OIL MIST, MINERAL: METHOD 5026	21
3.2	Sampling	22
	3.2.1 Reagent	22
	3.2.2 Adsorbent	23
	3.2.3 Instrument used for Adsorbent characterization	23
	3.2.4 Measurement	24
	3.2.5 Calculation	24
	3.2.6 Sampling	24
3.3	Equipment	26

ABSTRACT

OIL MIST REMOVAL FROM CONTAMINATED AIRBORNE BY USING DRY POWDER BANANA STEM

In the present study the adsorption of oil mist from contaminated airborne on dry powder banana stem was studied. The adsorbent was characterized using infrared spectroscopy and scanning electron microscopy measurements. The effectiveness of banana stem has been studied in a function of contact with time. Infrared spectroscopy was used to confirm the binding the binding of oil mist with functional groups present in the adsorbent. SEM studies clearly said that, to have a rough surface and pores containing a new shiny and bulky particle. BSOM has less void space than BS, which is consistent with the BSOM sample having smaller pores, and therefore more specific surface area. The BSOM had a rather granular structure, whereas BS had a rigid and folded appearance. The capacity of concentration of oil mist was decrease from (30.4, 20.3, 13.2, 7.2, and 0.7) mg/m^3 as the concentration of oil mist (5, 90,120,170,200,250) mg/l . It has been shown that, percent in removing oil mist from contaminated airborne is increasing in significant change of decreasing of concentration oil mist. Banana stem found efficient in removal oil mist from contaminated airborne due to the percentage of removal (97.7%).